

TV'S DIRTY LITTLE SECRET: THE NEGATIVE EFFECT OF POPULAR TV ON ONLINE AUCTION SALES

Oliver Hinz

Faculty of Law and Business, TU Darmstadt, Hochschulstraße 1,
64289 Darmstadt, GERMANY {hinz@wi.tu-darmstadt.de}

Shawndra Hill

Microsoft Research, NYC, 641 Avenue of the Americas,
New York, NY 10023 U.S.A. {shawndra@microsoft.com}

Ju-Young Kim

Institute of Information Systems and Marketing, Karlsruhe Institute of Technology, Zirkel 2,
76131 Karlsruhe, GERMANY {ju-young.kim@kit.edu}

Appendix

Table A1. Estimation Results for All Models with Sales in EUR as Dependent Variable

DV: Sales in EUR	(1) OLS Descriptive Estimates		(2) Disaster IV, Second Stage		(3) World Cup IV, Second Stage		(4) U.S. Election IV, Second Stage		(5) OLS with Daylight Proxy	
Number of TV Viewers in M.	-2.834	(2.367)	-269.064	(112.268)	-28.590	(13.667)	-457.302	(119.488)	-8.571	(2.422)
eBay Advertising in kEUR	-0.110	(0.015)	-0.080	(0.024)	-0.107	(0.016)	-0.059	(0.020)	-0.108	(0.016)
Bank Balance in mEUR	37.913	(11.349)	30.760	(15.254)	37.221	(11.395)	25.702	(11.720)	37.373	(11.326)
Temperature in deg. C	-17.478	(2.046)	-70.186	(22.416)	-22.577	(3.288)	-107.454	(23.803)	-18.331	(2.055)
Precipitation (e.g., rain) in mm	6.246	(1.920)	23.344	(7.668)	7.901	(2.092)	35.432	(7.919)	7.055	(1.918)
Public Holiday (0/1)	-537.864	(39.302)	-143.065	(184.232)	-499.669	(44.853)	136.077	(181.205)	-519.017	(39.674)
Time	0.146	(0.002)	0.133	(0.006)	0.145	(0.002)	0.125	(0.006)	0.145	(0.002)
Monday (0/1)	299.274	(32.823)	-740.553	(441.148)	198.677	(63.652)	-1475.762	(467.549)	258.459	(32.532)
Tuesday (0/1)	194.034	(29.134)	-873.619	(451.909)	90.745	(61.150)	-1628.501	(479.845)	152.666	(29.150)
Wednesday (0/1)	209.143	(30.731)	-927.097	(479.748)	99.218	(65.925)	-1730.474	(508.598)	164.463	(30.730)
Thursday (0/1)	124.573	(28.155)	-1016.264	(483.012)	14.204	(65.403)	-1822.891	(512.493)	79.622	(28.341)
Friday (0/1)	52.719	(27.053)	-956.149	(427.376)	-44.883	(58.364)	-1669.469	(453.485)	12.308	(27.303)
Saturday (0/1)	-108.281	(24.330)	-901.372	(337.466)	-185.008	(47.425)	-1462.126	(356.974)	-142.252	(24.554)
Sunday (0/1)	(omitted)		(omitted)		(omitted)		(omitted)		(omitted)	
00:00-01:59 (0/1)	-483.870	(71.612)	-7809.400	(3089.834)	-1192.571	(377.005)	-12988.909	(3288.180)	-789.448	(78.200)
02:00-03:59 (0/1)	-555.157	(88.842)	-9925.898	(3952.030)	-1461.720	(482.027)	-16551.470	(4205.628)	-944.876	(97.155)
04:00-05:59 (0/1)	-723.309	(91.905)	-10469.683	(4110.442)	-1666.212	(501.087)	-17360.847	(4374.700)	-1128.594	(100.261)
06:00-07:59 (0/1)	-655.753	(89.910)	-10168.453	(4012.009)	-1576.050	(488.849)	-16894.397	(4269.884)	-1046.038	(98.245)
08:00-09:59 (0/1)	-146.821	(83.781)	-8755.970	(3630.977)	-979.705	(443.053)	-14843.060	(3864.065)	-499.629	(91.652)
10:00-11:59 (0/1)	353.917	(77.576)	-7386.645	(3264.889)	-394.936	(400.172)	-12859.600	(3473.689)	35.348	(84.803)
12:00-13:59 (0/1)	433.886	(64.386)	-5434.095	(2474.026)	-133.806	(304.681)	-9583.045	(2633.367)	186.002	(69.420)

Table A1. Estimation Results for All Models with Sales in EUR as Dependent Variable (Continued)

DV: Sales in EUR	(1) OLS Descriptive Estimates		(2) Disaster IV, Second Stage		(3) World Cup IV, Second Stage		(4) U.S. Election IV, Second Stage		(5) OLS with Daylight Proxy	
16:00-17:59 (0/1)	511.211	(51.953)	-2814.772	(1403.102)	189.442	(174.870)	-5166.405	(1492.023)	360.732	(53.969)
18:00-19:59 (0/1)	429.243	(38.297)	1245.322	(350.801)	508.194	(58.005)	1822.330	(369.224)	447.628	(38.553)
20:00-21:59 (0/1)	452.931	(58.509)	6017.647	(2349.497)	991.284	(289.998)	9952.173	(2499.413)	677.554	(65.909)
22:00-23:59 (0/1)	(omitted)		(omitted)		(omitted)		(omitted)		(omitted)	
January (0/1)	-645.508	(54.903)	-312.968	(154.620)	-613.337	(57.708)	-77.846	(158.637)	-637.321	(54.659)
February (0/1)	-618.105	(55.930)	-339.215	(133.979)	-591.124	(57.964)	-142.026	(136.622)	-611.226	(55.694)
March (0/1)	-603.821	(57.362)	-533.285	(74.104)	-596.997	(57.735)	-483.413	(65.567)	-521.323	(44.677)
April (0/1)	-590.686	(55.893)	-742.534	(93.551)	-605.377	(56.628)	-849.898	(88.362)	-432.030	(32.160)
May (0/1)	-585.917	(58.610)	-767.236	(105.569)	-603.458	(59.573)	-895.438	(100.309)	-394.188	(33.048)
June (0/1)	-326.010	(62.878)	-319.969	(78.860)	-325.426	(63.106)	-315.697	(63.023)	-113.408	(32.786)
July (0/1)	-203.703	(65.366)	-280.345	(87.474)	-211.118	(65.675)	-334.534	(73.426)	0.000	(.)
August (0/1)	-275.108	(61.794)	-393.135	(91.280)	-286.526	(62.401)	-476.586	(80.947)	-96.078	(31.270)
September (0/1)	-181.775	(64.187)	-300.822	(91.229)	-193.292	(64.629)	-384.994	(82.978)	-81.779	(41.227)
October (0/1)	-347.585	(58.358)	-324.717	(69.941)	-345.373	(58.508)	-308.549	(59.401)	-273.141	(42.758)
November (0/1)	189.164	(67.143)	298.021	(88.277)	199.695	(67.461)	374.989	(86.902)	191.611	(66.822)
December (0/1)	(omitted)		(omitted)		(omitted)		(omitted)		(omitted)	
Daylight in Min									6.846	(21.532)
Daylight in Min X TV Viewers									-3.897	(0.419)
Constant	-332.052	(162.497)	11893.828	(5161.005)	850.728	(639.283)	20538.123	(5484.294)	52.694	(167.620)
F-Value	219.123		155.169		219.408		219.281		214.553	
R ²	0.416		0.028		0.412		0.416		0.419	
RMSE	1065.824		1374.625		1069.128		1066.893		1064.270	
N	17,023		17,023		17,023		17,023		17,023	

Robust Standard Errors in parentheses; * $p < .1$, ** $p < .05$, *** $p < .01$.

Table A2. First Stage Results for IV Models with TV Viewership as Dependent Variable

DV: TV Viewership	(1) Disaster IV, First Stage		(2) World Cup IV, First Stage		(3) U.S. Election IV, First Stage	
Disaster IV	1.940	(0.610)				
World Cup Broadcast IV			8.257	(2.926)		
U.S. Presidential Election IV					2.081	(0.652)
eBay Advertising in kEUR	0.000	(0.000)	0.000	(0.000)	0.000	(0.000)
Bank Balance in Mio. EUR	-0.026	(0.036)	-0.032	(0.036)	-0.028	(0.036)
Temperature in deg. C	-0.198	(0.007)	-0.199	(0.007)	-0.198	(0.007)
Precipitation (e.g., rain) in mm	0.064	(0.007)	0.065	(0.007)	0.064	(0.007)
Public Holiday (0/1)	1.482	(0.248)	1.480	(0.248)	1.482	(0.248)
Time	-0.000	(0.000)	-0.000	(0.000)	-0.000	(0.000)
Monday (0/1)	-3.906	(0.111)	-3.902	(0.112)	-3.906	(0.111)
Tuesday (0/1)	-4.012	(0.109)	-4.027	(0.108)	-4.010	(0.108)
Wednesday (0/1)	-4.273	(0.109)	-4.272	(0.109)	-4.271	(0.109)*
Thursday (0/1)	-4.286	(0.108)	-4.282	(0.108)	-4.285	(0.108)
Friday (0/1)	-3.791	(0.109)	-3.796	(0.109)	-3.789	(0.109)
Saturday (0/1)	-2.979	(0.126)	-2.989	(0.125)	-2.979	(0.126)
Sunday (0/1)	(omitted)		(omitted)		(omitted)	
00:00-01:59 (0/1)	-27.514	(0.130)	-27.504	(0.128)	-27.516	(0.130)
02:00-03:59 (0/1)	-35.196	(0.113)	-35.180	(0.111)	-35.199	(0.113)
04:00-05:59 (0/1)	-36.607	(0.114)	-36.591	(0.112)	-36.610	(0.114)
06:00-07:59 (0/1)	-35.730	(0.118)	-35.718	(0.117)	-35.733	(0.118)
08:00-09:59 (0/1)	-32.336	(0.108)	-32.324	(0.107)	-32.338	(0.108)
10:00-11:59 (0/1)	-29.073	(0.119)	-29.062	(0.118)	-29.075	(0.119)
12:00-13:59 (0/1)	-22.042	(0.117)	-22.022	(0.115)	-22.041	(0.117)
14:00-15:59 (0/1)	-17.026	(0.121)	-17.006	(0.119)	-17.025	(0.121)
16:00-17:59 (0/1)	-12.493	(0.132)	-12.491	(0.129)	-12.493	(0.132)
18:00-19:59 (0/1)	3.064	(0.166)	3.059	(0.165)	3.065	(0.166)
20:00-21:59 (0/1)	20.899	(0.165)	20.890	(0.164)	20.900	(0.165)
22:00-23:59 (0/1)	(omitted)		(omitted)		(omitted)	
January (0/1)	1.251	(0.156)	1.239	(0.156)	1.248	(0.156)
February (0/1)	1.048	(0.133)	1.040	(0.133)	1.047	(0.133)
March (0/1)	0.257	(0.129)	0.256	(0.130)	0.264	(0.129)
April (0/1)	-0.569	(0.136)	-0.563	(0.136)	-0.569	(0.136)
May (0/1)	-0.681	(0.155)	-0.667	(0.155)	-0.679	(0.155)
June (0/1)	0.023	(0.176)	-0.044	(0.175)	0.024	(0.176)
July (0/1)	-0.286	(0.181)	-0.293	(0.180)	-0.287	(0.181)
August (0/1)	-0.445	(0.164)	-0.429	(0.164)	-0.442	(0.164)
September (0/1)	-0.449	(0.156)	-0.440	(0.156)	-0.447	(0.156)
October (0/1)	0.086	(0.139)	0.087	(0.139)	0.085	(0.139)
November (0/1)	0.407	(0.126)	0.405	(0.126)	0.402	(0.126)
December (0/1)	(omitted)		(omitted)		(omitted)	
Constant	45.914	(0.440)	45.963	(0.440)	45.933	(0.440)
F-Value	12386.839		12372.213		12365.442	
R ²	0.967		0.967		0.967	
RMSE	3.264		3.254		3.264	

Robust Standard Errors in parentheses; * $p < .01$, ** $p < .05$, *** $p < .01$.

Table A3. All IVs Jointly in One Model (Model 6)				
	First Stage DV: TV Viewership		Second Stage DV: Sales	
Number of TV Viewers in Mil.			-0.367	(0.147)
Disaster IV	1.955	(0.612)		
World Cup Broadcast IV	8.260	(2.926)		
U.S. Presidential Election IV	2.094	(0.652)		
eBay Advertising in kEUR	0.000	(0.000)	-0.001	(0.000)
Bank Balance in Mio. EUR	-0.032	(0.036)	0.320	(0.074)
Temperature in deg. C	-0.199	(0.007)	-0.192	(0.032)
Precipitation (e.g., rain) in mm	0.066	(0.007)	0.055	(0.016)
Public Holiday (0/1)	1.479	(0.248)	-3.592	(0.370)
Time	-0.000	(0.000)	0.001	(0.000)
Monday (0/1)	-3.902	(0.112)	0.258	(0.616)
Tuesday (0/1)	-4.029	(0.108)	-0.575	(0.622)
Wednesday (0/1)	-4.280	(0.109)	-0.726	(0.659)
Thursday (0/1)	-4.283	(0.108)	-1.150	(0.660)
Friday (0/1)	-3.798	(0.109)	-1.487	(0.588)
Saturday (0/1)	-2.989	(0.125)	-2.188	(0.476)
Sunday (0/1)	(omitted)		(omitted)	
00:00-01:59 (0/1)	-27.503	(0.128)	-13.895	(4.048)
02:00-03:59 (0/1)	-35.180	(0.111)	-17.331	(5.180)
04:00-05:59 (0/1)	-36.591	(0.112)	-18.770	(5.388)
06:00-07:59 (0/1)	-35.719	(0.117)	-17.816	(5.257)
08:00-09:59 (0/1)	-32.323	(0.107)	-12.553	(4.759)
10:00-11:59 (0/1)	-29.061	(0.118)	-7.311	(4.285)
12:00-13:59 (0/1)	-22.023	(0.115)	-4.341	(3.250)
14:00-15:59 (0/1)	-17.007	(0.119)	-2.210	(2.516)
16:00-17:59 (0/1)	-12.491	(0.129)	-0.587	(1.851)
18:00-19:59 (0/1)	3.058	(0.165)	4.647	(0.529)
20:00-21:59 (0/1)	20.886	(0.164)	11.351	(3.101)
22:00-23:59 (0/1)	(omitted)		(omitted)	
January (0/1)	1.240	(0.156)	-4.701	(0.436)
February (0/1)	1.040	(0.133)	-5.227	(0.421)
March (0/1)	0.247	(0.130)	-5.216	(0.404)
April (0/1)	-0.560	(0.136)	-5.288	(0.404)
May (0/1)	-0.665	(0.155)	-5.341	(0.424)
June (0/1)	-0.042	(0.175)	-3.498	(0.432)
July (0/1)	-0.291	(0.180)	-2.231	(0.460)
August (0/1)	-0.430	(0.164)	-3.224	(0.435)
September (0/1)	-0.442	(0.156)	-3.037	(0.443)
October (0/1)	0.087	(0.139)	-3.695	(0.408)
November (0/1)	0.397	(0.126)	-0.180	(0.446)
December (0/1)	(omitted)		(omitted)	
Constant	45.965	(0.440)	14.103	(6.808)
F-Value	11730.834		358.586	
R ²	0.967		0.518	
RMSE	3.254		6.979	
N	17,023		17,023	

Robust Standard Errors in parentheses; * $p < .01$, ** $p < .05$, *** $p < .01$.